

Ser. No. 09/974,777
Response to Office Action of 11 February 2004
Atty Docket 117163-28

REMARKS

Claims

Claims 1, 2 and 5-66 were pending in this matter on the date of the Office Action, and all have been rejected, as described more fully below. Independent claim 66 is cancelled above. Claim 1 is amended above, as described more fully below.

35 USC §112 Rejections and Claim Amendments

The Examiner has rejected claims 1, 2 and 5-66 as being indefinite because the difference between bar elements and bar element portions is not clear. Referring to paragraph [0024] of the specification and Figure 1, it is clear that a bar element 3 consists of a first bar element portion 3.1 and a second bar element portion 3.2, with the first and second bar element portions joined at a turning or reversal point 5. Analogously, Figure 2 shows a bar element 3' made up of a first bar element portion 3.1' and a second bar element portion 3.2', with the first and second bar element portions joined at a turning or reversal point 5'. Figure 3 shows a bar element 3'' made up of a first bar element portion 3.1'' and a second bar element portion 3.2'', with the bar element portions joined at a turning or reversal point 5''. Figure 4 shows a bar element 3''' made up of a first bar element portion 3.1''' and a second bar element portion 3.2''', with the first and second bar element portions joined at a turning or reversal point 5''''. This language has been incorporated into claim 1 by the following modification:

"wherein the bar elements of at least a first annular support portion extend in a meander configuration in a peripheral direction of the stent, each bar element consisting of first and second bar element portions that and a number of bar element portions which adjoin at a turning point meet in an angle having a V-shape in the compressed first condition of the stent."

A further amendment is made to later portions of claim 1 to clarify the invention as shown and described in the figures and specification. First, to correct a possible misperception caused by differences between English and German phrase order in sentences, the phrase "in the longitudinal direction of the stent" has been moved to directly follow the verb it modifies, namely, "extends." This is a clarification amendment and is non-narrowing.

Also, and in order to clarify the distinction of the present invention from cited prior art references, the same section of claim 1 is amended to require that "the first and second bar element portions ... extend ... curvedly in an identical concave or convex arcuate manner."

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Although the terms "concave" and "convex" are not explicitly used in the specification, support for this last amendment is clearly found in the specification and drawings. Particularly, paragraph [0024] teaches that the bar element portions "extend curvedly in a first direction indicated by the double-headed arrow 7" and paragraph [0014] indicates that when two or more support portions are involved, some of the second support portions may have bar element portions that extend curvedly in a "second direction of curvature, *in opposite relation to the first direction*" [emphasis added]. Depending upon the point of view, double-headed arrow 7 shows a concave or convex curvature, but the important fact is that, in either case, all of the bar element portions in the first support portion are identically curved, either concavely or convexly, although bar element portions in an adjacent support portion may be oppositely curved.

35 USC §102 Rejections

von Oepen (US 6,193,747)

Claims 1, 2, 5-7, 11-30, 47, 48, and 66 stand rejected as being anticipated by U.S. Patent 6,193,747 to von Oepen ("von Oepen '747") for the reasons set forth in the prior Office Action. The applicant traverses the rejection with respect to all claims, except claim 66 which has been cancelled.

Claim 1

Claim 1 is the independent claim remaining in the case and, if it is not anticipated by von Oepen '747, then the remaining rejected claims 2 and 5-65 are also allowable as properly dependent claims.

In an earlier Action, the Examiner has based the rejection upon Figure 5 of von Oepen '747. The Examiner indicates that the "bar element portions of von Oepen are considered to be only the portions of the bar elements which are adjacent to the point where they meet to form the claimed V-shape." The Examiner then states that "these portions are curved uniformly over an entire length thereof as broadly claimed." Even if these two positions of the Examiner are correct, and the applicant does not agree that they are, then the "bar element portions" are not "adapted to extend in the longitudinal direction of the stent curvedly in an identical concave or convex arcuate manner," for at least two reasons. First, the two bar element portions in von Oepen '747 do not "extend curvedly in an identical concave or convex arcuate manner" and they do not extend "in the longitudinal direction of the stent." The Examiner makes no finding that

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either of these limitations, which have been in the claim and are not part of the present amendments, is met by von Oepen '747. Using the Examiner's reading, Figure 5 of von Oepen '747 shows first bar element portions 3.1 that are longer than the second bar element portions 3.2, joined at a turning point 5, and since they traverse the same distance in the longitudinal direction, which the Examiner has correctly determined, then the first and second bar element portions cannot simultaneously "extend curvedly in an identical concave or convex arcuate manner" and "be curved uniformly over an entire length thereof."

To illustrate this, applicant has attached a copy of von Oepen '747 Figure 5 as page 16 of this response. The applicant has marked as 3.1 and 3.2 what it understands to be the first and second bar element portions in the Examiner's interpretation.

Globerman (US 5,776,161)

Claims 1, 2, 5-10 stand rejected as being anticipated by U.S. Patent 5,776,161 to Globerman ("Globerman '161"). The applicant traverses the rejection for at least the following reasons.

Claim 1 is the independent claim and, if it is not anticipated by Globerman '161, then claims 2 and 5-10 are also allowable as properly dependent claims.

It is understood that the Examiner still relies upon Figure 16 of Globerman '161, and the Examiner says in the earlier Action cited that "all the bar elements are curved in a direction that is non-longitudinal and the direction of this curve is the same for adjacent annular supports." The Examiner further says that "the curves are uniform and continuous." Applicant respectfully disagrees. As in von Oepen '747, one of the two bar element portions is longer, but with both bar element portions having the same longitudinal extent, then the first and second bar element portions cannot simultaneously "extend curvedly in an identical concave or convex arcuate manner" and "be curved uniformly over an entire length thereof." If, as shown in the attached (as Page 17) copy of Figure 16 with applicant notations, the Examiner wants to split the longer bar elements 3.1 into halves 3.1a, 3.1b at the inflection point X to provide all first and second bar element portions with the same length (second bar element portions 3.2 and turning point 5 also being shown), then they do not "extend in the longitudinal direction of the stent curvedly in an identical concave or convex arcuate manner," since the presence of the inflection point infers a change from concave to convex (or vice versa) curvature.

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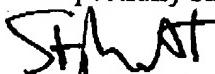
35 USC §103 Rejections

The Examiner has rejected claims 31-46 and 49-65 as being unpatentable over von Oepen '747 in view of US Patent 6,261,319 to Kveen et al. ("Kveen '319"). The applicant traverses this rejection. First, the claims at issue deal with features of the connecting bars, shown as 4, 4' and 4'' in the Figures of the present application. In claims 31-38, the connecting bars are said to be "rectilinear." In claims 48-56, the connecting bars are said to be "V-shaped." Kveen '319, and particularly Figure 4a as cited previously by the Examiner, shows curved connecting bars which are neither "rectilinear" nor "V-shaped." Further, Kveen '319 does nothing to alleviate the shortcomings of von Oepen '747 with regard to the curvature of the bar element portions as described above.

For these reasons, and because claim 1 as amended is allowable over the cited prior art, claims 31-46 and 49-65 are believed to be allowable as properly dependent claims of an allowable base claim.

Accordingly, the applicant respectfully requests reconsideration of the rejections based on the claim amendments made above. After such reconsideration, it is urged that allowance of all claims will be in order.

Respectfully submitted,



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